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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,296	10/21/2003	Takuro Sekiya	2271/71291	8028

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EXAMINER

LIANG, LEONARD S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/690,296

Applicant(s)

SEKIYA, TAKURO

Examiner

Leonard S. Liang

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-20 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/21/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification and Drawings***

The lengthy specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification and drawings. Specifically, the applicant is required to match all references in the drawings to the references in the specification.

### ***Claim Objections***

Claims 1 and 3 are objected to because of the following informalities: Claim 1 discloses, "a unit which enables the printing unit to print image on the recording medium such that the vertical orientations of the images printed both sides of the recording medium are coincide with each other." This is not correct grammar. It will be construed that the claim should state, "a unit which enables the printing unit to print **an** image on the recording medium such that the vertical orientations of the images printed **on** both sides of the recording medium coincide with each other." Appropriate correction is required.

Claim 7 is objected to because of the following informalities: Claim 7 discloses "the ink-jet recording head has a multi-nozzle-type ink-jet recording head which jets ink with a frequency substantially from 1 kHz through 40 kHz per nozzle on demand and configured so as to jets a plurality of colors of ink." This is not correct grammar. It will be construed that the claim should state the ink-jet recording head has a multi-nozzle-type ink-jet recording head which jets

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ink with a frequency substantially from 1 kHz through 40 kHz per nozzle on demand and configured so as to jet a plurality of colors of ink.” Appropriate correction is required.

Claim 10 is objected to because of the following informalities: Claim 10 discloses, “the unit which enables the printing unit to print image on the recording medium such that the vertical orientations of the images formed on both sides of the recording medium are coincide with one each other.” This is not correct grammar. It will be construed that the claim should state, “the unit which enables the printing unit to print **an** image on the recording medium such that the vertical orientations of the images formed on both sides of the recording medium coincide with each other.” Appropriate correction is required.

Claims 11-12 and 14 are objected to because of the following informalities: Claims 11-12 disclose, “the unit which enables the printing unit to print image on the recording medium such that the vertical orientations of the images formed on both sides of the recording medium are coincide with each other.” This is not correct grammar. It will be construed that the claim should state, “the unit which enables the printing unit to print **an** image on the recording medium such that the vertical orientations of the images formed on both sides of the recording medium coincide each other.” Appropriate correction is required.

Claim 13 is objected to because of the following informalities: Claim 13 discloses, “a unit which enables the printing unit to print the images on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium are coincide with each other...a second conveyance unit and a conveyance path for conveying the recording medium, one side of which has been already printed, into the printing unit again in order to printing image onto the other side thereof.” This is not correct grammar. It will be construed

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that the claim should state, “a unit which enables the printing unit to print the images on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium coincide with each other... a second conveyance unit and a conveyance path for conveying the recording medium, one side of which has been already printed, into the printing unit again in order to print the image onto the other side thereof.” Appropriate correction is required.

Claim 17 is objected to because of the following informalities: Claim 17 is dependent on claim 22, but no claim 22 exists. It will be construed that claim 17 should depend on claim 13 instead. Appropriate correction is required.

Claim 18 is objected to because of the following informalities: The claim states, “A recording medium... which has a containing member which contains the recording medium; a conveyance path for conveying the recording medium; one side of which has been already printed, into a printing unit again in order to printing image onto the other side thereof; and a unit for printing images on the recording medium such that the vertical orientations of the images printed both sides of the recording medium are coincide with each other...” This is not correct grammar. It will be construed that the claim should state “A recording medium... which has a containing member which contains the recording medium; a conveyance path for conveying the recording medium; one side of which has been already printed, into a printing unit again in order to print image onto the other side thereof; and a unit for printing images on the recording medium such that the vertical orientations of the images printed **on** both sides of the recording medium coincide with each other...” Appropriate correction is required.

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Claim 19 is objected to because of the following informalities: Claim 19 discloses, “and a unit which enables to print image on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium are coincide with each other.” This is not correct grammar. It will be construed that the claim should state, “and a unit which enables **the printing of an image** on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium coincide with each other.” Appropriate correction is required.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 9-10, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Regimbal (US Pat 6679600) in view of Minata et al (US Pat 5143904).

Regimbal discloses:

- {claim 1} An ink-jet recording apparatus (column 1, lines 20-30); a containing member (figure 1, reference 21); a printing unit comprising an ink-jet recording head which jets recording liquid onto the recording medium (figure 1, reference 40; column 1, lines 20-30); a conveyance unit and a conveyance path for conveying the recording medium, one side of which has been already printed, into the printing unit again in order to print image onto the other side thereof

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(figure 1, reference 66, 68; column 3, lines 6-38; column 3, line 64-column 4, line 4)

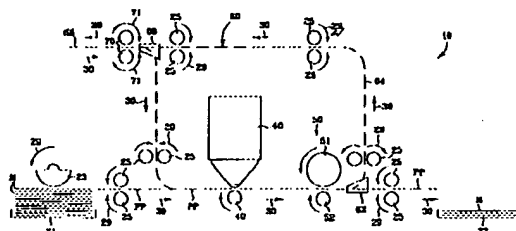


FIG. 1  
(Prior Art)

- {claim 3} An ink-jet recording apparatus (column 1, lines 20-30); a first containing member containing a first recording medium (figure 1, reference 22); a second containing member which contains a second recording medium (figure 1, reference 21); a printing unit comprising an ink-jet recording head which jets recording liquid onto the first recording head which jets recording liquid onto the first recording medium or the second recording medium (figure 1, reference 40; column 1, lines 20-30); a conveyance unit and a conveyance path for conveying the second recording medium, one side of which has already been printed, into the printing unit again in order to print image onto the other side thereof; and a unit which enables the printing unit to print image on the other side of the second recording medium such that the vertical orientations of the images printed both sides of the recording medium are coincide with each other, wherein: the second containing member containing the second recording medium is distinguishable from the first containing member (figure 1, reference 66, 68; column 3, lines 6-38; column 3, line 64-column 4, line 4)

- {claim 4} wherein the recording medium is temporarily stopped in the conveyance path (column 3, line 64-column 4, line 4)
- {claim 5} wherein a heating unit is provided in the conveyance path (figure 1, reference 51)
- {claim 6} a containing member which temporarily contains the recording medium on the conveyance path (figure 1, reference 20)
- {claim 9} a recording medium heating unit having a heating range extending along the direction perpendicular to the recording medium conveyance direction so as to cover a range larger than the printing width of the recording medium (figure 1, reference 51)
- {claim 10} a rotation control mechanism which rotates the orientation of the recording medium by substantially 180 degrees (figure 1, reference 66, 68; column 3, line 64-column 4, line 4)
- {claim 12} a twisted path provided on the conveyance path, the shape of which is twisted so that the front and back sides of the recording medium, which passes through the twisted path, is turned upside down for substantially 180 degrees (figure 1, reference 66, 68; column 3, lines 6-38; column 3, line 64-column 4, line 4)
- {claim 18} A recording medium used in an ink-jet recording apparatus, which has a containing member which contains the recording medium; a conveyance path for conveying the recording medium; one side of which has been already printed, into a printing unit again in order to print image onto the other side



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thereof; and a unit for printing image on the recording medium (figure 1; column 1, lines 20-30; column 3, lines 6-38; column 3, line 64-column 4, line 4); a base member

Regimbal differs from the claimed invention in that it does not explicitly disclose:

- {claim 1} a recording medium which has a base member and granular material coated on both sides of the base member, and roughness of the surfaces of the coated granular material is smaller than the roughness of the base member; a unit which enables the printing unit to print an image on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium coincide with each other
- {claim 2} wherein both sides of the granular material is substantially symmetrically coated on the base member with respect to the center line of the base member
- {claim 3} the second recording medium having a base member and a granular material coated on both surfaces of the base member, and roughness of both surfaces of the coated granular material is smaller than the roughness of the base member, and both granular material is substantially symmetrically coated on the base member with respect to the center line of the base member; a unit which enables the printing unit to print an image on the other side of the second recording medium such that the vertical orientations of the images printed on both sides of the recording medium coincide with each other

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- {claim 18} granular material coated inside of the base member and also both sides of the base member, and roughness of the surfaces of the coated granular material is smaller than the roughness of the base member

Regimbal implicitly discloses:

- {claims 1 and 3} a unit which enables the printing unit to print an image on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium coincide with each other (Regimbal teaches in the background of the invention that an imaging device in use is the copier (column 1, line 17). Regimbal also teaches the availability of duplex printing (column 3, lines 6-16). In light of these two teachings, though it is not explicitly stated, Regimbal naturally suggests that duplex printing of the same image can be performed on a media (which is also well known in the art). In this scenario, following the operation of the mechanism shown in figure 1, it is clear that the vertical orientations of the images printed on both sides of the recording medium coincide with each other)

Minato et al discloses:

- {claim 1} a recording medium which has a base member and granular material coated on both sides of the base member, and roughness of the surfaces of the coated granular material is smaller than the roughness of the base member (column 7, lines 47-69; column 8, lines 3-9; column 13, lines 53-62; column 14, lines 8-9)

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- {claim 2} wherein both sides of the granular material is substantially symmetrically coated on the base member with respect to the center line of the base member (column 5, lines 9-14, lines 32-36; front and back coated layers have correct thickness disclosed, they can be adjusted to have same thickness)
- {claim 3} the second recording medium having a base member and a granular material coated on both surfaces of the base member, and roughness of both surfaces of the coated granular material is smaller than the roughness of the base member, and both granular material is substantially symmetrically coated on the base member with respect to the center line of the base member (column 5, lines 9-14, 32-36; column 7, lines 47-59; column 8, lines 3-9; column 13, lines 53-62); column 14, lines 8-9)
- {claim 18} granular material coated inside of the base member and also both sides of the base member, and roughness of the surfaces of the coated granular material is smaller than the roughness of the base member (column 7, lines 47-59; column 8, lines 3-9; column 13, lines 53-62; column 14, lines 8-9)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Minata et al into the invention of Regimbal. The motivation for the skilled artisan in doing so is to gain the benefit of improved image quality with images of higher resolution.

Claims 7, 13-14, 16-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Regimbal (US Pat 6679600) in view of Minata et al (US Pat 5143904), as applied to claims 1-6, 9-10, 12, and 18, and further in view of Sekiya (US Pat 6338545).

Regimbal discloses:

- {claim 13} An ink-jet copier (column 1, line 17); a printing unit which jets ink onto a recording surface of a recording medium based on the image data provided from the scanner (figure 1, reference 40; column 1, lines 20-30); a recording medium conveyance unit disposed below the printing unit for conveying and ejecting the recording medium in a predetermined timing according to the recording operation (figure 1, reference 66, 68; column 3, lines 6-38; column 3, line 64-column 4, line 4); a containing member which contains a recording medium having a base member (figure 1, reference 21); a first conveyance unit that conveys the recording medium into a position that faces the nozzle surfaces of the multi-nozzle-type ink-jet recording head (figure 1, reference 30, PP); a second conveyance unit and a conveyance path for conveying the recording medium, one side of which has been already printed, into the printing unit again in order to print the image onto the other side thereof (figure 1, reference 66, 68)
- {claim 14} a rotation control mechanism which rotates the orientation of the recording medium by substantially 180 degrees
- {claim 16} a plurality of recording media (figure 1, reference 21); a plurality of containing members containing the plurality of recording media (figure 1, reference 21-22); at least one of the plurality of recording media comprises a

recording medium (figure 1, reference 21); the containing member, which contains the recording medium, is distinguishable from the other containing members (figure 1, reference 21)

- {claim 17} a recording medium heating unit that has a heating range extending along the direction perpendicular to the recording medium conveyance direction so as to cover a range larger than a printing width of the recording medium, on which the image is to be printed (figure 1, reference 51)
- {claim 19} A recording medium used in an ink-jet copier (figure 1, reference 17, 21); a recording unit having a multi-nozzle-type ink-jet recording head which jets ink (column 1, lines 20-30); a recording medium conveyance unit disposed below the printing unit for conveying and ejecting the recording medium in a predetermined timing according to the recording operation, the recording medium conveyance unit has a conveyance unit and conveyance path that convey the recording medium into a position that faces the nozzle surfaces of the multi-nozzle-type ink-jet recording head and convey the recording medium, one side of which has been already printed, into the printing unit again in order to print images onto the other side thereof; and a unit which enables to print image on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium coincide with each other (figure 1, reference 66, 68; column 3, lines 6-38; column 3, line 64-column 4, line 4); a base member (figure 1, reference 21)

Regimbal differs from the claimed invention in that it does not explicitly disclose:

- {claim 7} the ink-jet recording head has a multi-nozzle-type ink-jet recording head which jets ink with a frequency substantially from 1 kHz through 40 kHz per nozzle on demand and configured so as to join jets a plurality of colors of ink; the recording medium is conveyed to a position that faces the nozzle surfaces of the multi-nozzle-type ink-jet recording head during recording
- {claim 13} a scanner which reads an original image placed on an original table, so as to form image data therefrom in sequence; granular material coated on both sides of the base member, and roughness of the coated granular material is smaller than the roughness of the base member; the printing unit has a multi-nozzle-type ink-jet recording head which jets ink with a frequency from 1 kHz through 40 kHz per nozzle on demand, and the ink-jet recording head is arranged so as to jet a plurality of colors of ink
- {claim 16} both sides of the granular material is substantially symmetrically coated on the base member with respect to the center line of the base member
- {claim 19} a scanner unit which reads an original image placed on an original table, so as to form image data therefrom in sequence; recording head jets in with a frequency of 1 kHz through 40 kHz per nozzle on demand, the ink-jet recording head is arranged so as to jet a plurality of colors of ink, the recording unit jetting ink onto a recording surface of the recording medium based on the image data provided from the scanner unit; granular material coated inside the base member and also both sides of the base member, and the roughness of the surfaces of the coated granular material is smaller than the roughness of the base member

- {claim 20} wherein both sides of the granular material is substantially symmetrically coated on the base member with respect to the center line of the base member

Regimbal implicitly discloses:

- {claims 13 and 19} a scanner which reads an original image placed on an original table, so as to form image data therefrom in sequence; the recording unit jetting ink onto a recording surface of the recording medium based on the image data provided from the scanner unit (naturally suggested in light of column 1, line 17 where a copier is disclosed as a known imaging device that is pertinent to the invention; scanner which reads original image so as to form data therefrom in sequence is well known to copier as is jetting ink in response to data provided from scanner unit); a unit which enables the printing unit to print an image on the recording medium such that the vertical orientations of the images printed on both sides of the recording medium coincide with each other (Regimbal teaches in the background of the invention that an imaging device in use is the copier (column 1, line 17). Regimbal also teaches the availability of duplex printing (column 3, lines 6-16). In light of these two teachings, though it is not explicitly stated, Regimbal naturally suggests that duplex printing of the same image can be performed on a media (which is also well known in the art). In this scenario, following the operation of the mechanism shown in figure 1, it is clear that the vertical orientations of the images printed on both sides of the recording medium coincide with each other)

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Minato et al discloses:

- {claim 13} granular material coated on both sides of the base member, and roughness of the coated granular material is smaller than the roughness of the base member (column 7, lines 47-59; column 8, lines 3-9; column 13, lines 59-62; column 14, lines 8-9)
- {claim 16} both sides of the granular material is substantially symmetrically coated on the base member with respect to the center line of the base member (column 7, lines 47-59; column 8, lines 3-9; column 13, lines 53-62; column 14, lines 8-9)
- {claim 19} granular material coated inside the base member and also both sides of the base member, and the roughness of the surfaces of the coated granular material is smaller than the roughness of the base member (column 7, lines 47-59; column 8, lines 3-9; column 13, lines 53-62; column 14, lines 8-9)
- {claim 20} wherein both sides of the granular material is substantially symmetrically coated on the base member with respect to the center line of the base member (column 5, lines 9-14 and 32-36; front and back coated layers can be adjusted to have same thickness)

Sekiya discloses:

- {claim 7} the ink-jet recording head has a multi-nozzle-type ink-jet recording head which jets ink with a frequency substantially from 1 kHz through 40 kHz per nozzle on demand and configured so as to jet a plurality of colors of ink (figure 8; column 12, lines 17-48)



- {claim 13} the printing unit has a multi-nozzle-type ink-jet recording head which jets ink with a frequency from 1 kHz through 40 kHz per nozzle on demand, and the ink-jet recording head is arranged so as to jet a plurality of colors of ink (figure 8; column 12, lines 47-48)
- {claim 19} recording head jets in with a frequency of 1 kHz through 40 kHz per nozzle on demand, the ink-jet recording head is arranged so as to jet a plurality of colors of ink (figure 8; column 12, lines 47-48)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Minata et al into the invention of Regimbal. The motivation for the skilled artisan in doing so is to gain the benefit of improved image quality with images of higher resolution.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Sekiya into the invention of modified Regimbal. The motivation for the skilled artisan in doing so is to gain the benefit of providing a liquid jet recording apparatus which eliminates nozzle clogging (column 3, lines 22-23). The combination naturally suggests the recording medium is conveyed to a position that faces the nozzle surfaces of the multi-nozzle-type ink-jet recording head during recording.

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Regimbal (US Pat 6679600) in view of Minata et al (US Pat 5143904) and Sekiya (US Pat 6338545), as applied to claims 7, 13-14, 16-17, and 19-20, and further in view of Hotomi (US Pat 6036302).

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Regimbal discloses:

- {claims 8 and 15} An ink jet recording apparatus/copier (as applied to claims 7 and 13 above)

Regimbal differs from the claimed invention in that it does not disclose:

- {claims 8 and 15} the nozzles of the ink-jet recording head are arranged longitudinally so as to cover a printing width of the recording medium on which the image is to be printed, and the nozzles have a cross-sectional area in a range between 10  $\mu\text{m}^2$  and 600  $\mu\text{m}^2$ , and the ink-jet recording head has 1000 through 10000 nozzles in the nozzle arrangement density of 400 dpi through 3200 dpi

Sekiya discloses:

- {claims 8 and 15} the nozzles of the ink-jet recording head are arranged longitudinally so as to cover a printing width of the recording medium on which the image is to be printed (figure 6, reference 50), and the nozzles have a cross-sectional area in a range between 10  $\mu\text{m}^2$  and 600  $\mu\text{m}^2$  (abstract)

Hotomi discloses:

- {claims 8 and 15} the nozzles have a cross-sectional area in a range between 10  $\mu\text{m}^2$  and 600  $\mu\text{m}^2$ , and the ink-jet recording head has 1000 through 10000 nozzles in the nozzle arrangement density of 400 dpi through 3200 dpi (column 7, lines 51-62)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Sekiya into the invention of modified

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Regimbal. The motivation for the skilled artisan in doing so is to gain the benefit of providing a liquid jet recording apparatus which eliminates nozzle clogging (column 3, lines 22-23).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Hotomi into the invention of modified Regimbal. The motivation for the skilled artisan in doing so is to gain the benefit of to print effectively on A4 paper.

#### *Allowable Subject Matter*

Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 11 discloses "the unit sends the image data to the ink-jet recording head in the reverse order so that the image data is printed on the back side of the recording medium from bottom to top direction," which was not found, taught, or disclosed in the prior arts.

#### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamamoto et al (US Pat 6502934) discloses a recording apparatus.

Underwood et al (US Pat 6487382) discloses techniques for achieving correct order in printer output.

Bortolotti (US Pat 6250754) discloses a duplex printer.

Sato (US Pat 6508169) discloses a compound recording apparatus and a compound recording and processing method.

Namiki et al (US Pat 20030007054) discloses an image forming apparatus and light amount correction method.

Mochimaru (US Pat 5615872) discloses a detachable duplex copying unit for an image forming apparatus.

Newell, Jr. et al. (US Pat 6144814) discloses a method for automatically complying with a page stop specification in a printing device.

Wei (US Pat 6669190) discloses a double-side automatic feeding apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

07/22/05

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MANISH S. SHAH  
PRIMARY EXAMINER

7/25/05